



NSBP1 siRNA (h): sc-90899

BACKGROUND

The high-mobility group (HMG) proteins -14 and -17 are abundant chromosomal proteins that bind to nucleosomes and enhance transcription. HMG-14 and HMG-17 also function as architectural elements, which alter the structure of the chromatin fiber and enhance transcription from chromatin templates. HMG-14/17 proteins modify the nucleosomal organization of the 30 nm chromatin fiber and mediate the unfolding of the higher order chromatin structure, thereby facilitating access to the underlying DNA sequence. The nucleosomal binding protein 1 (NSBP1) is highly homologous to the HMG-14 and HMG-17 proteins and plays a pivotal role in chromatin remodeling. The human NSBP1 gene produces three mRNA transcripts with alternate polyadenylated sites, which are thought to mediate the stability of the mRNA. In androgen-independent prostate cancer cells, NSBP1 promotes cell growth and viability, which, subsequently, makes NSBP1 a potential target for therapeutic purposes.

REFERENCES

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6. Zhou, L.Q., Song, G., He, Z.S., Hao, J.R. and Na, Y.Q. 2007. Effects of inhibiting nucleosomal binding protein 1 on proliferation of human prostate cancer cells. *Zhonghua Yi Xue Za Zhi* 87: 404-408.

CHROMOSOMAL LOCATION

Genetic locus: HMGN5 (human) mapping to Xq21.1.

PRODUCT

NSBP1 siRNA (h) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NSBP1 shRNA Plasmid (h): sc-90899-SH and NSBP1 shRNA (h) Lentiviral Particles: sc-90899-V as alternate gene silencing products.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NSBP1 siRNA (h) is recommended for the inhibition of NSBP1 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor NSBP1 gene expression knockdown using RT-PCR Primer: NSBP1 (h)-PR: sc-90899-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.